

EDITORIAL

The final report from the Canterbury Earthquakes Royal Commission has recently been released in 3 volumes. Volume 1 is titled “Summary and Recommendations in Volumes 1-3, Seismicity, Soils and the Seismic Design of Buildings”, volume 2 “The Performance of Christchurch CBD buildings” and volume 3 “Low-Damage Building Technologies”. Volume 2 comprises 236 pages mainly describing the performance of multi-storey buildings in central Christchurch, which on the whole performed poorly in the earthquakes. The final report on the collapse of the CTV building is due for release in November 2012.

There are a total of 70 Commission recommendations in the three volumes. These cover a range of topics, many requiring changes to Building and Loadings’ Standards as well as recommendations as to further research leading to code amendments and additions.

Some of the recommendations deal with:

- Location of active faults near Christchurch
- Vertical acceleration clauses in NZS1170.5
- Geotechnical investigations of each building site
- Foundations for liquefiable sites
- Shallow foundation design guide
- Revision of the response spectral shape factor for deep alluvial soils under Christchurch
- Requirements for regularity in buildings
- Design actions for floors acting as diaphragms
- Differences between design and peak inter-storey drifts
- The influence on seismic loading rates on reinforced concrete structures
- Restrictions on the clear height to width ratios of reinforced concrete walls
- Increased confinement zones in ductile reinforced concrete walls
- Effects of elongation in beams, columns and walls when plastic hinges form
- Interaction between building elements when elongation occurs
- Adequate seismic gaps between stairs and their supports for peak inter-storey drifts
- Greater dialogue between geotechnical and structural engineers
- Currently used methods of structural analysis do not predict elongation
- More training and guidance recommended for structural engineers especially when assessing existing buildings
- The principles of protecting life beyond the ultimate limit state should be applied

This list only covers a few of the major recommendations and I suggest readers obtain a copy of the Commission’s reports and study them thoroughly.

After the rush of writing and producing the large Bulletin issues about the Darfield earthquake (Vol. 43, No. 4) and the Christchurch earthquakes (Vol. 44, No. 4) the submission of papers for review has dropped off to a trickle. I’m appealing to authors of papers presented at last year’s Pacific Conference on Earthquake Engineering in Auckland and this year’s NZSEE Conference in Christchurch to dust off their papers, amend and lengthen them as they wish and submit them to me for review and possible publication in this journal.

The NZSEE Management Committee is considering the setting up of an international editorial board to attract a broader range of papers from around the world, as well as expand the number of reviewers used in the production of top-rate papers published in the Bulletin.

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